

RUN DATE: 90/04/24
 RUN TIME: 00:01:53

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
 MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH
 MINFILE - REPORT

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MINFILE NO.: 082ESE153

NATIONAL MINERAL INVENTORY NO.: 082E2 Au4

NAME(S): GOLD DROP (L.1415)

STATUS: Past Producer - Underground MINING DIVISION: Greenwood
 N.T.S.: 082E02E
 LATITUDE: 49 09 57 UTM ZONE: 11
 LONGITUDE: 118 36 00 UTM NORTHING: 5446900
 ELEVATION: 1396 Metres UTM EASTING: 383350

COMMENTS: Upper adit, 1.4 kilometres south-southwest from the summit of Mount Pelly, east of Jewel Lake, 10 kilometres north-northeast from the town of Greenwood (Minister of Mines, Annual Report 1933-A159; 1946-A136).

LOCATION ACCURACY: Within 500 M

COMMODITIES: Silver Gold Lead
 Zinc Copper
 SIGNIFICANT MINERALS: Pyrite Galena Sphalerite Chalcopyrite Telluride
 Gold Sylvanite
 ASSOCIATED MINERALS: Quartz
 AGE OF MINERALIZATION: Unknown
 DEPOSIT CHARACTER: Vein Discordant
 DEPOSIT CLASS.: Hydrothermal Epigenetic
 SHAPE: Cylindrical
 MODIFIER: Fractured

STRIKE/DIP: 030 40E

COMMENTS: Strike and dip of the vein are variable.

DOMINANT HOST ROCK: Metasedimentary

GROUP: Anarchist

STRATIGRAPHIC AGE: Miss-Pennsylvanian

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks

STRATIGRAPHIC AGE: Juro-Cretaceous

IGNEOUS/METAMORPHIC/OTHER: Unnamed/Unknown Informal

STRATIGRAPHIC AGE: Tertiary

LITHOLOGY: Quartz Wacke
 Lithic Wacke
 Meta Basalt
 Granodiorite Dyke
 Lamprophyre Dyke

TECTONIC BELT: Omineca
 TERRANE: Undivided Metamorphic Assembl. Plutonic Rocks

PHYSIOGRAPHIC AREA: Okanagan Highland

METAMORPHIC TYPE: Regional

METAMORPHIC RELATIONSHIP: Pre-mineralization

GRADE: Greenschist

RESERVES:

ZONE: GOLD DROP

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CLASSIFICATION: Best Assay

DATE: 1984

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold 39.4000 Grams per tonne

Silver 164.5000 Grams per tonne

REFERENCE: George Cross Newsletter #189, October 1, 1984

PRODUCTION: ** ALL METRIC VALUES ARE IN KILOGRAMS EXCEPT PRECIOUS METALS WHICH ARE IN GRAMS **
 ** ALL IMPERIAL VALUES ARE IN POUNDS EXCEPT PRECIOUS METALS WHICH ARE IN OUNCES **

YEAR	Tonnes Mined	Tonnes Milled	Gold	Silver	Copper	Lead	Zinc
1988	2	2	75	2,272	9	48	
1980	0	40	92	4,728	44	681	160
1941	114	0	560	3,079			
1940	18	0	280	1,680			
1939	17	0	218	1,120			
1938	58	0	467	3,017			
1934	16	0	342	3,328			
1933	28	0	840	4,914			
1932	16	0	746	4,354			
1931	15	0	653	2,861			
1928	9	0	435	1,991			
1927	2	0	156	1,804		23	
1926	1	0	156	746		6	
METRIC TOTAL:	296	42	5,020	35,894	53	758	160
IMPERIAL TOTAL: Tons	326	46	161	1,154	117	1,671	353

COMMENTS FOR 1988: Custom ore.

GEOLOGY:

The Jewel Lake area is underlain by a complex of metamorphic rocks mostly of sedimentary and volcanic origin correlative with the Carboniferous or older Anarchist Group, and a large granodiorite intrusion correlative to the Juro-Cretaceous Nelson Plutonic Rocks. Small dykes and sill-like bodies, feeders to nearby Tertiary lavas, pervade these units. Four north striking and one northwest striking quartz fissure-vein structures are known in the Jewel Lake camp, all of which have received some development. Most of the production from the camp has come from what is known as the Jewel (Dentonia) vein (082ESE055).

Locally the metamorphosed volcanic and sedimentary rocks are not always distinguishable, both being fine-grained and medium or dark coloured with primary structures such as bedding and flow banding being confused with foliation or gneissosity. Generally the sedimentary rocks are brittle and quartz-rich, however, compositions vary

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and some biotitic varieties have the same competence as the amphibole-rich volcanic rocks. These rocks are locally called quartzites but few are true quartzites and more appropriate terms would be quartz wacke or lithic wacke. The massive character of the volcanic rocks is due to a combination of intense regional metamorphism and primary structures. Field and petrographic data indicate that at least some of the original rock formed as a result of massive accumulations of lava flows and pillow lava. Crosscutting feeder dykes and sills are significant and contribute to the massive aspect of the volcanic rocks. The metamorphosed schistose volcanic rocks are compositionally basalts. These metasedimentary and metavolcanic rocks form part of the Carboniferous (Pennsylvanian-Mississippian) or older Anarchist Group.

Igneous intrusions in the Jewel Lake camp include a large Lower Cretaceous granodiorite pluton and a host of younger pulaskite and lamprophyre dykes. The granodiorite is correlative with Nelson Plutonic Rocks. It is a homogeneous medium-grained grey body which intrudes the metavolcanic rocks along a northwest trending contact in the southwest part of the camp. The intrusive has produced little effect in both the metavolcanic and metasedimentary rocks. Granodiorite dykes occur and are compositionally similar to the main granodiorite body and are probably offshoots from it. Pulaskite dykes are numerically most important. Several types are evident including both quartz-bearing and undersaturated types. Post-vein lamprophyre dykes as well as the pulaskite dykes are of probable Lower Tertiary age and cut all other major geological units.

On the Gold Drop claim (L.1415), two adits explore the Gold Drop quartz vein which is subparallel to and 548 metres north-northeast of the Jewel (Dentonia) vein (082ESE055). The quartz fissure-vein is hosted in fine-grained, finely bedded biotitic metasedimentary rocks which contain minute partings and wisps of argillaceous material. The rocks are quartz wackes or lithic wackes and strike northwest with dips 65 degrees northeast to vertical. Smaller zones and lenses of metabasalt are intercalated or interfolded within this metasedimentary unit. Lamprophyre and granodiorite dykes also occur. The metasedimentary and metavolcanic rocks form part of the Carboniferous (Pennsylvanian-Mississippian) or older Anarchist Group.

The Gold Drop quartz vein strikes 030 degrees and dips 40 to 65 degrees southeast with widths ranging from a few centimetres to 1.5 metres. The vein is partly oxidized at shallow depths. Mineralization is sparse and consists of pyrite, galena, sphalerite, chalcopyrite, tellurides (possibly sylvanite) and native gold. Locally the vein has been brecciated and recemented with quartz.

A lower adit intersects the quartz vein 67 metres from the portal and follows the vein in a north direction and then swings northeast. The upper adit comprises the principal workings and is located 16 metres higher in elevation and 83 metres northeast of the lower adit. The upper adit follows the quartz vein for 24 metres northeast and the other branch extending 24 metres east and then swinging back northeast for 48 metres.

The Gold Drop vein continues its northeast strike onto the adjoining North Star claim (L.1165, 082ESE152). The Gold Drop-North Star quartz vein is approximately subparallel to the Jewel (Dentonia)

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quartz vein which occurs to the south-southwest.

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*1946-A136
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DATE CODED: 850724
DATE REVISED: 890220

CODED BY: GSB FIELD CHECK: NO
REVISED BY: GO FIELD CHECK: NO

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